



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,703	06/29/2001	Jeff Zentner	10014498-1	6469

7590 04/03/2006
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

CERVETTI, DAVID GARCIA

ART UNIT PAPER NUMBER

2136

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/895,703

Applicant(s)

ZENTNER ET AL.

Examiner

David G. Cervetti

Art Unit

2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,9-12 and 14-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,9-12 and 14-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's arguments filed January 25, 2006, have been fully considered.
2. Claims 1-6, 9-12, and 14-18 are pending and have been examined. Claims 7-8 and 13 are cancelled.


Response to Arguments

3. In view of the appeal brief filed on 1/25/06, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Allowable Subject Matter

4. Claims 15-18 would be allowable.
5. The following is an examiner's statement of reasons for allowance: the prior art of record does not expressly disclose the claimed method steps for determining if multiple keys have been simultaneously pressed.
6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
7. **Claim 15 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.**
8. **Claims 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**
9. **As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).**

Claim Objections

10. Claim 3 is objected to because of the following informalities: “the plurality of keys are”, perhaps “the plurality of keys is” was intended. Appropriate correction is required.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1, 10, and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the added key value". There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the key value". There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitations "adding the added key press values", "to the added key value", "transferring the key value". There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 101

13. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

14. Claims 1 and 10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Even though the claims are directed to a structure, the result of the comparison is not a tangible result (MPEP 2106).

15. To expedite a complete examination of the application, the claims rejected under 35 U.S.C. 101 (non-statutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 103

16. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

17. Claims 1, 10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rush (US Patent 6,230,222), and further in view of Kwon et al. (US Patent 5,264,845, hereinafter Kwon).

Regarding claim 1, Rush teaches a key-pad including a plurality of keys (Abstract); and a key-pad controller providing a key value signal when one of the keys is activated (Abstract), said controller determining which key is activated by a process including a predetermined number of steps, wherein the process has the same number of steps regardless of which key is activated (column 4, lines 9-50), and wherein each key is assigned a predetermined key press value (Abstract). Rush does not expressly

Art Unit: 2136

disclose adding the key press values and comparing the value to another value to determine if multiple keys have been pressed. However, Kwon teaches said controller adding the key press values when the keys are pressed, and wherein the controller compares the added key value to a predetermined value to determine if multiple keys have been simultaneously pressed (column 4, lines 9-66). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teachings of Kwon to the system of Rush. One of ordinary skill in the art would have been motivated to perform such a modification to determine double-key errors (Kwon, column 4, lines 9-21).

Regarding claim 10, Rush teaches a key-pad including a plurality of keys arranged in a plurality of rows and a plurality of columns, each key being assigned a key press value (Abstract); and a key-pad controller outputting the key value to the terminal when one of the keys is pressed (Abstract), said controller determining the key that is pressed by a process including a predetermined number of steps, where the number of steps is the same regardless of which key is pressed (column 4, lines 9-50). Rush does not expressly disclose adding the key press values and comparing the value to another value to determine if multiple keys have been pressed. However, Kwon teaches said controller determining if more than one key has been pressed in more than one column, and then if only one key has been pressed, determining which key has been pressed on a row-by-row basis by adding the key press values for each key that is pressed, wherein the controller compares the added key press value to a predetermined value to determine if multiple keys in a column have been simultaneously pressed (column 4,

lines 9-66). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teachings of Kwon to the system of Rush. One of ordinary skill in the art would have been motivated to perform such a modification to determine double-key errors (Kwon, column 4, lines 9-21).

Regarding claim 3, the combination of Rush and Kwon teaches the limitations as set forth under claim 1 above. Furthermore, Rush teaches wherein the plurality of keys is arranged in a plurality of columns (column 2, lines 28-67), and Kwon teaches wherein the plurality of keys is arranged in a plurality of rows and a plurality of columns (column 2, lines 61-68, column 3, lines 1-5).

Regarding claim 4, the combination of Rush and Kwon teaches the limitations as set forth under claim 3 above. Furthermore, Kwon teaches wherein the controller determines if more than one key has been activated in more than one column (column 3, lines 42-59, column 4, lines 1-21).

Regarding claim 5, the combination of Rush and Kwon teaches the limitations as set forth under claim 4 above. Furthermore, Kwon teaches wherein the controller adds a counter value to a counter if a key is activated in a column (column 3, lines 60-68), and wherein the controller determines which column is being monitored for a key activation by a set bit in a digital word (column 3, lines 49-55, column 4, lines 22-42).

Regarding claim 6, the combination of Rush and Kwon teaches the limitations as set forth under claim 3 above. Furthermore, Kwon teaches wherein the controller determines which key has been activated on a row-by-row basis (column 3, lines 60-68, column 4, lines 22-29, 60-68, column 5, lines 1-12).

Regarding claim 9, the combination of Rush and Kwon teaches the limitations as set forth under claim 1 above. Furthermore, Kwon teaches wherein the controller subtracts the added key value from a predetermined value to calculate a key value to be transmitted (column 1, lines 59-62, column 3, lines 1-22, column 4, lines 1-29).

Regarding claim 11, the combination of Rush and Kwon teaches the limitations as set forth under claim 10 above. Furthermore, Kwon teaches wherein the controller adds a counter value to a counter if a key is pressed in a column (column 3, lines 60-68), and wherein the controller determines that more than one key has been pressed in more than one column (column 3, lines 42-59) if the counter value in the counter is greater than a predetermined value (column 4, lines 9-66).

Regarding claim 12, the combination of Rush and Kwon teaches the limitations as set forth under claim 10 above. Furthermore, Kwon teaches wherein the controller adds the key press value for each key pressed in a particular row before moving on to a next row (column 3, lines 2-10, column 4, lines 1-66).

Regarding claim 14, the combination of Rush and Kwon teaches the limitations as set forth under claim 10 above. Furthermore, Kwon teaches wherein the controller subtracts the added key value from a predetermined value to determine the key value to be transmitted to the terminal (column 1, lines 59-62, column 3, lines 1-22, column 4, lines 1-29).

Art Unit: 2136

18. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Rush and Kwon, and further in view of De Jesus et al. (US Patent Number: 5,832,206, hereinafter "De Jesus").

Regarding claim 2, the combination of Rush and Kwon does not expressly disclose a display and a magnetic strip reader. However, De Jesus teaches a key-pad device comprising a display and a magnetic strip reader (column 3, lines 50-65).


Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply the teachings of De Jesus to the system of Rush and Kwon. One of ordinary skill in the art would have been motivated to perform such a modification to provide an input means to a Point of Sale terminal (De Jesus, columns 1-2).

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David G. Cervetti whose telephone number is (571) 272-5861. The examiner can normally be reached on Monday-Friday 7:00 am - 5:00 pm, off on Wednesday.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

DGC